

Abstract

The invention is directed to a method, system and device for converting direct current (DC) electrical voltage from a fuel cell to an alternating current (AC) voltage. The inventive method regulates power drawn from the fuel cell and from a battery to maintain a substantially constant DC voltage across a DC bus, and inverts the DC voltage from the DC bus to the AC voltage. The method may further electrically isolate the fuel cell from the load. Also, the inventive method may prevent current from flowing to the fuel cell. The inventive method may also provide a charging current to the battery.